WHAT IS CLAIMED IS:

1. A method for preparing an organosilicate polymer comprising the steps of mixing a thermally decomposable organic silane compound that is capped with silane compounds at both its ends, and a silane compound or a silane oligomer, and then adding water and a catalyst thereto to conduct hydrolysis and condensation.

2. The method for preparing an organosilicate polymer according to claim 1, wherein the thermally decomposable organic silane compound that is capped with silane compounds at both its ends are represented by the following Chemical Formula 1:

[Chemical Formula 1]

$$R^1_pR^2_{3-p}Si-L-SiR^3_qR^4_{3-q}$$

wherein

R^1 and R^3 are independently a hydrogen, fluorine, aryl, vinyl, allyl, or linear or branched C1-4 alkyl unsubstituted or substituted with fluorine;

R^2 and R^4 are independently an acetoxy, hydroxyl, or linear or branched C1-4 alkoxy;

L is an organic substance that can be thermally decomposed at 450 ℃ or less; and

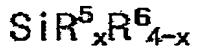
p and q are respectively an integer of 0 to 2.

3. The method for preparing an organosilicate polymer according to claim 2, wherein the organic substance that can be thermally decomposed at 450 ℃ or less is selected from a group consisting of ether, ester, anhydride, carbonate, carbamate, acrylate, epoxy, isocyanate, and amide compounds.

4. The method for preparing an organosilicate polymer according to claim 1, wherein the silane compound or silane oligomer is comprised of silicone, carbon, oxygen, and hydrogen.

5. The method for preparing an organosilicate polymer according to claim 1, wherein the silane compound or silane oligomer is selected from a group consisting of compounds represented by the following Chemical Formula 2, Chemical Formula 3, and Chemical Formula 4:

[Chemical Formula 2]



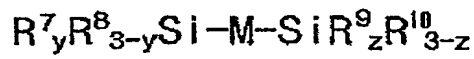
wherein

R^5 is independently a hydrogen, fluorine, aryl, vinyl, allyl, or linear or branched C1-4 alkyl unsubstituted or substituted with fluorine;

R^6 is independently an acetoxy, hydroxyl, or linear or branched C1-4 alkoxy; and

x is an integer of 0 to 2,

[Chemical Formula 3]



wherein

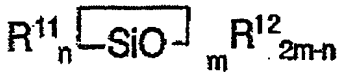
R^7 and R^9 are independently a hydrogen, fluorine, aryl, vinyl, allyl, or linear or branched C1-4 alkyl unsubstituted or substituted with fluorine;

R^8 and R^{10} are independently an acetoxy, hydroxyl, or linear or branched C-14 alkoxy;

M is C1-6 alkylene or phenylene; and

y and z are respectively an integer of 0 to 2,

[Chemical Formula 4]



wherein

R^{11} are independently a hydrogen, fluorine, aryl, vinyl, allyl, or linear or branched C1-4 alkyl unsubstituted or substituted with fluorine;

R^{12} is independently a hydroxy, or a linear or branched C-14 alkoxy; and

m and n are respectively an integer of 3 to 10.

6. An organosilicate polymer prepared by mixing a thermally decomposable organic silane compound that is capped with silane compounds at both its ends, and a silane compound or silane oligomer, and then adding water and a catalyst to conduct hydrolysis and condensation.

7. A coating composition for forming an insulating film, which comprises:

a) an organosilicate polymer comprising

i) a thermally decomposable organic silane compound that is capped with silane compounds at both its ends, and

ii) a silane compound or silane oligomer; and

b) an organic solvent.

8. A method for manufacturing a low dielectric insulating film for a semiconductor device, which comprises the steps of:

a) providing a solution of a coating composition for forming an insulating film comprising:

i) an organosilicate polymer comprising a thermally decomposable organic silane compound that is capped with silane compounds at both its ends, and a silane compound or silane oligomer, and

ii) an organic solvent;

b) coating the a) solution on a substrate of a semiconductor device to form an insulating film; and

c) drying and firing the b) coated insulating film.

9. An insulating film for a semiconductor device prepared by the method of claim 8.

10. A semiconductor device comprising an insulating film for a semiconductor device prepared by the method of claim 8.